METHODS AND APPARATUS FOR OPTIMIZING GARBAGE COLLECTION

ABSTRACT OF THE DISCLOSURE

Methods and apparatus for executing a method to enable memory
associated with objects not referenced external to the executed method to be
reclaimed upon completion of execution of the method. Methods include
obtaining a data structure including one or more addresses of source code that
creates local objects, obtaining next source code in the method, and
determining whether an address of the obtained next source code is in the data
structure. When the address of the obtained next source code is in the data
structure including one or more addresses of source code that creates local
objects, a local object is created on a local heap of memory using the source
code associated with the address such that local objects are stored in memory